

Morita et al. (U. S. Patent No. 5,815,366). Applicant respectfully traverses these rejections.

To establish a *prima facie* case of obviousness under 35 U.S.C. §103(a), each of three requirements must be met. First, the reference or references, taken alone or combined, must teach or suggest each and every element recited in the claims. Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the references in a manner resulting in the claimed invention. Third, a reasonable expectation of success must exist. Moreover, each of the three requirements must "be found in the prior art, and not be based on applicant's disclosure." See M.P.E.P. §2143, 8th ed., February 2003.

Regarding the rejection of claims 1, 3-6, 9, and 17-19 as unpatentable over Tepman in view of Satoh, Applicant submits that Tepman and Satoh do not teach each and every element of claim 1, which recites, *inter alia*, "a lift base, and at least one lift pin . . . having two ends with a first end . . . and a second end . . . , wherein the first end of the lift pin is threaded and the lift base has a threaded hole for receiving the first end of the lift pin."

First, as the Examiner correctly recognized, "Tepman does not disclose the lift base has a thread hole." Office Action, page 3. In other words, Tepman fails to teach or suggest at least "wherein . . . the lift base has a threaded hole for receiving the first end of the lift pin," as recited in claim 1.

Regarding Satoh, Applicant first notes that the Examiner found the arguments presented in the Amendment of February 17, 2004 to traverse the rejection of claim 17

persuasive. Office Action, page 2. Those arguments are summarized here: 1) Satoh's pin 11, which the Examiner considered as corresponding to Applicant's claimed "lift pin," is not threaded and is only inserted into the "fine cavity 28" of the pin holder 10; 2) the part in Satoh's structure that receives pin 11 is the pin holder 10, **NOT** lift base 9; and 3) pin holder 10 does not have a "threaded hole." Satoh, col. 7, lines 43-61. Therefore, Satoh fails to teach or suggest at least "a lift pin . . . having . . . a first end . . . wherein the first end of the lift pin is threaded," and "the lift base has a threaded hole for receiving the first end of the lift pin," as recited in claim 1. Accordingly, Applicant respectfully traverses the Examiner's allegation that "Satoh discloses a semiconductor processing apparatus having a lift base (9) with a thread hole (32) for lift pins." Office Action, page 3.

In view of the above, even a combination of Tepman and Satoh still fails to teach or suggest at least "wherein . . . the lift base has a threaded hole for receiving the first end of the lift pin," as recited in claim 1.

The Examiner further alleged that "[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to have placed the lift base of Tepman with a lift base having a thread hole as taught by Satoh in order to improve productivity, and time required for maintenance can be shortened." Office Action, page 3. In an effort to support this obviousness statement, the Examiner further stated in the section titled "Response to Arguments" of the outstanding Office Action that "Satoh states . . . that using substrate-supporting mechanism allows the time required for maintenance to be shortened because this makes replacement of expendables easy,

and as a result, productivity can be improved. One of ordinary skill in the art would have recognized that the benefits of the lift structure (such as shown in fig. 3) which has a thread hole (32)." Applicant respectfully traverses the Examiner's position.

Applicant first points out a flaw in the Examiner's allegations. Satoh's "substrate-supporting mechanism allows the time required for maintenance to be shortened" **NOT** because "the lift structure (such as shown in fig. 3) . . . has a thread hole (32)." Rather, it was because "[a]ttaching or detaching the pin 11 to or from the pin holder 10 can be achieved easily" (Satoh, col. 8, lines 53-54) due to the fine cavity 28 in pin holder 10. The Examiner clearly misinterpreted Satoh's teachings. Based on Satoh's teachings, one skilled in the art would not have been motivated to modify Tepman's teachings to make a lift structure having a thread hole to allow a shortened maintenance time.

Second, Applicant wishes to repeat the arguments presented in the Response to Final Office Action of October 17, 2003 and the Amendment of February 17, 2004, **which the Examiner found persuasive** (Office Action of November 24, page 4), that Tepman clearly shows that each of pin 30 is coupled to the pin holder with one nut on each side of the pin holder and actually teaches away from "wherein . . . the lift base has a threaded hole for receiving the first end of the lift pin," as recited in claim 1. In other words, Tepman lacks "a reason, suggestion, or motivation," as required by *Smiths Industries, Medical Sys., Inc. v. Vital Signs, Inc.*, 183 F.3d 1347, 1356, 51 USPQ2d 1415, 1420 (Fed. Cir. 1999), for one skilled in the art to combine the applied references.

In view of the above, neither Satoh nor Tepman contains a motivation for one skilled in the art to combine these two references. Therefore, Applicant respectfully traverses the Examiner's obviousness statements as quoted above.

In conclusion, Tepman and Satoh, taken alone or in combination, fail to teach or suggest each and every element of the present invention as claimed in claim 1. They actually teach away from the present invention. One skilled in the art therefore would not have been motivated to combine the references to result in the present claimed invention. Nor would there have been any reasonable expectation of success in doing so. Thus, claim 1 is patentable over Tepman and Satoh.

Claims 3-6, which depend from claim 1, are therefore also allowable at least because of their dependency from an allowable base claim.

Similarly, claim 17 recites, *inter alia*, “providing a removable first lift pin to a lift base in the lift structure, wherein a first end of the first lift pin is threaded and the lift base has a threaded hole for receiving the first end of the first lift pin.” For the reasons already set forth in the above, claim 17 is patentable over Tepman in view of Satoh. Claim 18, which depends from claim 17, is also patentable at least because of its dependency from an allowable base claim.

Regarding the rejection of claims 7 and 8 under 35 U.S.C. § 103(a) as being unpatentable over Tepman in view of Satoh, and further in view of Morita et al., Applicant wishes to repeat his arguments presented in the Response filed on December 17, 2003, that 1) Tepman and Satoh, taken alone or in combination, fail to teach or suggest at least “at least one pin removably coupled with the lift base, the lift pin having two ends with a first end removably coupled to the lift base . . . , wherein the first end of

the lift pin is threaded and the lift base has a threaded hole for receiving the first end of the lift pin,” as recited in claim 1; and 2) Morita et al. does not overcome the deficiencies of Tepman and Satoh. One skilled in the art would not have been motivated to combine the references, nor would there be any reasonable expectation of success in doing so, because, as discussed above, they actually teach away from the claimed invention. Thus, claim 1 is allowable over Tepman, Satoh, and Morita et al., and claims 7 and 8, which depend from claim 1, are also allowable at least because of their dependency from an allowable base claim.

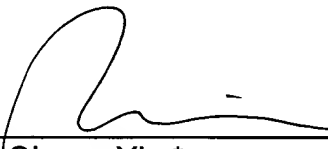
In view of the foregoing, Applicant respectfully requests the reconsideration and reexamination of this application and the timely allowance of the pending claims 1, 3-9, and 17-19.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: July 6, 2004

By:  _____
Qingyu Yin *

*With limited recognition under 37 C.F.R. § 10.9(b).